April-16-13 12:37:00 PM

99941

Page 1

	646.4001 AS350 Cable Cutter 4/16/13		Accept	*N9000 Cust Item ID Customer:) * §	Stop *NS2*
Reference: Approvals:	QC:	Date: /3-0Y-//	G Tooling: SPC (Y/N):	Date Date		F	Run Start *NR1* Stop *NR2*
Sequence ID/ Work Center II	Operation Description		Set Up/ Run Hours	Tool ID	Tool # Plan Code	Accept Qty	Reject Reject Insp. Qty Number Stamp
Draw Nbr	Revision Nbr						
646.4000	A		·	49 ,			
1 \\n\ DC Document Control	DOCUMENT CONTE Memo Photocopy	ROL / bluefile & type labels per Pl	0.00 7 0.00 7 PP 646.4001	63			
110 *110 Packaging	Pick Ķit M emo		0.00				143/2/4 (1)
Packaging 120 *120*	QC4- 100% Inspect kit	is for completeness	0.00	. 13		7	A
QC Quality Control	Memo		0.00	, -		J	

NCR:	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE												
		•									QA Closed:	Date	
Work Orde	er: _					DISPOSITION	_			AGAINST DE	EPARTMENT,		
Part I	•					Rework Scrap Use-as-is Work Order Update		ا Therm	Skid-tube Machining Noforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Engineer Prod. Eng. Coor. Qua Rec/Store/Packaging Oth Supplier		
							_						
Root Cause		Date	Step	Qty		ption of work order update or Non-conformance	1	Initial nief Eng	Acti Descri		Sign & Date	Verification	QC Inspector
Doc/Data	П						Т						
Equip/Tooling							ŀ						
Operator													
Material													Ì
Setup				l			١.						
Other													
Process													
Supplier													
Training									·				
Unapproved													
						F	AUL	T CATE	GORY				
Landi	ng C	Gear				General	_	,		_	7	-	7
		Bending				Bend		Grain			Ovalized	<u></u>	Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa		<u> </u> _	Over/Under	⊢	Temperature/Cure
	Ш	Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	-	Weld
	Ш	Crushed/0	Crimped.			Burrs	\perp	4	ions Incomplete/L	Jnclear	Part Lost/Mi	issing	Wrong Stock Pulled
	Ш	Cuffs	•			Contamination		Mainte	nance		Part Moved		
	Ш	Heat Trea	t			Countersink		Mislabe		_	Positioned V		7
	Ш	Inspection	n Strip in	Tube		Cut Too Short		Misread	i		Power Loss/	'Surge	Other
	Ш	Ripples in	Bend			Drill Holes		Offset					
	П	Torque W	aves in E	xtrusio	n	Drawing		Out of 0	Calibration				

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Quality Control

April-16-13 12:37:00 PM Item ID: 646.4001 Accept *N900040100* Setup Start **Revision ID:** AS350 Cable Cutter Item Name: Start Date: Start Oty: 1.00 *1* 4/16/13 Cust Item ID: Required Date: 4/30/13 Rea'd Otv: 1.00 **Customer:** Reference: Run Start Approvals: Process Plan: Date: Tooling: Date: Stop OC: Date: _____ SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Accept Reject Insp. Work Center ID Description **Run Hours** Code Qty Qty Number Stamp 130 0.00 *120* Packaging Packaging 0.00 Memo Packaging Identify and pack for shipping as per PPP 646,4001 Location:___ 140 QC21- Final Inspection - Work Order Release 0.00 MLJ 13-06-13 QC 0.00 Memo

U 1306.13

												DQA:	Date	e: <u>.</u>	3
NCR:	Yes	/ No				WORK ORDER NON-C	O	NFORM	MANCE / UP	DATE					•
					<u> </u>	*						QA Closed:	Date	3:	v
Work Ord	٥٢.					DISPOSITION				AGAINST D	E	PARTMENT	PROCESS		
Work Ora	er.	 				Rework	1		Skid-tube	Crosstube	٦		Water Jet	\neg	Engineering
Part	No.					Scrap			Machining	Small Fab	┪	Pro	d. Eng. Coor.	┫	Quality
						Use-as-is	1	Therm	noforming	Finishing		Rec/Stor	e/Packaging		Other
NCR	No.					Work Order Update			Large Fab	Composite			Supplier		
			,				لـــ				_	6: 0	the state of the s	-	
Root					1	ption of work order update	!	nitial		tion		Sign &			061
Cause	1	Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription	_	Date	Verification	\dashv	QC Inspector
Doc/Data	_						1				į			1	
Equip/Tooling	<u> </u>														
Operator	<u> </u>		1		ļ								•	Ì	
Material			<u> </u>											ł	
Setup	<u> </u>		1										:		
Other	<u> </u>														
Process	<u> </u>														
Supplier	-													- 1	
Training	<u> </u>														
Unapproved	l		<u> </u>	<u> </u>			A 1 11	T CATE	CORV			, <u>-</u>			
1 4	:					General General	AUL	CATE	JONT	<u> </u>					
Land	ing (1				Bend	_	Grain		Г	_	Ovalized	Γ	\neg	Pressure/Forced
	\vdash	Bending Centre No	at Cansai	atria ta	o/s	BOM/Route	\vdash	Hardwa	ro	-		Over/Under	tolerance	\dashv	Temperature/Cure
	\vdash	4	ot concer	itric to	^{0/3} -	Broken/Damaged	\vdash	4	on Incomplete	-		Part Incorre	<u> </u>		Weld
	-	Cracks	Crimnad		-	Burrs .	\vdash	4 .	ions Incomplete/	Unclear		Part Lost/Mi	<u> </u>	_	Wrong Stock Pulled
	\vdash	Crushed/ Cuffs	сппреа.		-	Contamination	-	Mainte	·	Gilcical		Part Moved			on B otock i alled
	\vdash		.+		—	Countersink	-	Mislabe		 -		Positioned V	Vrong		
	\vdash	Heat Trea		Tubo		Cut Too Short		Misread		F		Power Loss/		\neg	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

April-16-13 12:37:03 PM

Work Order ID: 99941

Parent Item:

646.4001

99941 *646 4001*

Parent Item Name: AS350 Cable Cutter

Start Date: 4/16/13

Required Date: 4/30/13

Start Oty: 1.00

Required Otys 1 00

									Start Qty: 1.00)	Require	ed Qty: 1.0	0
Comments:	IPP REV:A 12.10.	23 NEW ISSUE	DD	VERF:JLM									
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch		Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
646.3301	· ·	Manufactured	No				Each	25.0000		_	<u></u>		÷ ·
TALA 330 Upper Cutter Assembly	18								**				11.
_	\mathcal{O}			Location	ļ	Loc (<u>Oty</u>	Loc Code				4	#
Sh	1			ST139A	125002		7				-		
				ST545	125083		7 18		_		_		
					93247		18		7	2247	ī		
646.3001		Manufactured	No				Each	17.0000	~-1	100	2	_	,
Lower Cutter Assembly	11 *								**	1000	548		#
	R			Location		Loc (<u>Oty</u>	Loc Code				_ ,	
⊃N				ST139A			9		·				
					125083		9		_		_		
				ST537			8 .	•			-		
646.2910			Νla		93425		8		7		-		1
*@4@ @@4	3 *	Manufactured	No				Each	6.0000					
Deflector	ŋ <i>"</i>								**	MISO	222	6	
$\leq \omega$				Location		Loc C)fv	Loc Code	1		A	V.	,
_)/:٧				ST139A		Loc	6	Loc Code			14	P	•
				~	125083		6		_		-		

NCR:	Yes	/ No				WORK ORDER NON-C	O	NFORI	MANCE / UPDATE			Det	
											QA Closed:	Date	2:
Work Orde	or.					DISPOSITION			AG	GAINST DE	PARTMENT	PROCESS	
WOIK OIG	C1.					Rework	1		Skid-tube Cro	sstube		Water Jet	Engineering
Part I	Vo.					Scrap				nall Fab	Pro	d. Eng. Coor.	Quality
	•					Use-as-is		Thern	noforming Fi	nishing	Rec/Stor	re/Packaging	Other
NCR I	No.	<u>.</u>				Work Order Update]		Large Fab Com	nposite		Supplier	
Root]		Descri	tion of work order update		Initial	Action	. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Description	1	Date	Verification	QC Inspector
Doc/Data										:	,		
Equip/Tooling													
Operator													
Material													
Setup	Ш												
Other		1											
Process	Ш			·									
Supplier					i								
Training												[
Unapproved												`	
						F	AUL	T CATE	GORY				
Landi	ng (Gear			_	General		1		_	1	г	
	\vdash	Bending				Bend	<u></u>	Grain		<u> </u>	Ovalized	-	Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route	<u></u>	Hardwa		ļ	Over/Under	F	Temperature/Cure
	$oxed{oxed}$	Cracks				Broken/Damaged	$ldsymbol{f eta}$	4 '	ion Incomplete		Part Incorre	}	Weld
	Ш	Crushed/	Crimped.			Burrs		4	ions Incomplete/Unclear	r	Part Lost/M	issing [Wrong Stock Pulled
	Ш	Cuffs				Contamination		Mainte			Part Moved		
	Ш	Heat Trea	it			Countersink		Mislabe			Positioned \	- r	 -
		Inspectio	n Strip in	Tube		Cut Too Short	L	Misread	d .		Power Loss/	'Surge [Other
		Ripples in	Bend			Drill Holes		Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

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Work Order ID: 99941

99941

Parent Item:

646.3510

646.4001

646 4001

Location

ST139A

93300

125083

125023

125083

125083

Parent Item Name: AS350 Cable Cutter

Start Date: 4/16/13

Required Date: 4/30/13

Start Oty: 1.00

Required Oty: 1.00

646 3810

Manufactured

Each 8.0000

Manufactured

Loc Oty

Each

Each

Each

Each

Loc Code

3.0000

99609 /

Location ST139B

Loc Qty 3 Loc Code

2.0000

646.3511

Manufactured

Manufactured

Location ST

Loc Qty 2 Loc Code

1.0000

**

Manufactured No Location ST139A

Loc Qty

Loc Code

24.0000

646.3513

646.3512

Location ST139A

Loc Qty 24

24

Loc Code

120083

NCR:	Yes	/	No

MODE ODDED NON CONFORMANCE / HDDATE

DQA: _____ Date: _____

NCR: Y	es / No				WORK ORDER NON-	CONFOR	WANCE / OPD		QA Closed:	Date	2:
Work Orde	r	23	*		DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part N					Rework Scrap		Skid-tube Machining	Crosstube Small Fab	Pro	Water Jet d. Eng. Coor.	Engineering Quality
NCR N					Use-as-is Work Order Update	Theri	noforming Large Fab	Finishing Composite	Rec/Stor	re/Packaging Supplier	Other
Root				Descri	ption of work order update	Initial	Actio	on	Sign &		
Cause	Date	Step	Qty	ı	or Non-conformance	Chief Eng	Descri	ption	Date	Verification	QC inspector
Doc/Data Equip/Tooling Operator											
Material											
Setup											
Other										1	
Process											
Supplier											
Training [3							
Unapproved		_					<u> </u>		<u> </u>		
					<u> </u>	AULT CATE	GORY				
Landir	ng Gear			-	General				٦	r-	_
	Bending				Bend	Grain			Ovalized	-	Pressure/Forced
	Centre No	ot Conce	ntric to (D/S	BOM/Route	Hardw		<u> </u>	Over/Under	<u> </u>	Temperature/Cure
1	Cracks			<u> </u>	Broken/Damaged	—	tion Incomplete	<u> </u>	Part Incorre		Weld
	Crushed/	Crimped.		L	Burrs	\vdash	tions Incomplete/Ui	nclear	Part Lost/M		Wrong Stock Pulled
	Cuffs				Contamination		enance		Part Moved		
	Heat Trea			<u> </u>	Countersink	Mislab		ļ	Positioned V	· · ·	_
	Inspectio		Tube		Cut Too Short	Misrea	d		Power Loss/	'Surge	Other
.	Ripples in				Drill Holes	Offset					
	Torque W			۱	Drawing	 	Calibration				
ļ	Turning S	equence			Finish	\vdash	Sequence				
	Wave/Tw	ist in Tul	oe e	Folio Outside Dimensions							

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Work Order ID: 99941

Parent Item:

646.4001

Parent Item Name: AS350 Cable Cutter

99941

646 4001

Start Date: 4/16/13

Required Date: 4/30/13

Start Qty: 1.00

Required Qty: 1.00

NA\$11149E0332P

Purchased

No

Each 8.710.000

MS21042L3

Purchased

No

Location Loc Qty Loc Code GA 182 122063 182 ST294 158 122063 158 ST295 3 123352 3 st510 8367 123900 8367 Each

4,780.000

Location	Loc Oty	Loc Code
FP001	3	
122141	3	
GA	119	
122452	119	
ST314	268	
117885	32	
119017	55	
119075	138	
123265	43	
ST506	4390	

974

3416

_		 	
_		 	
_		 	
_	1.5	 	

123900

124291

										DQA:	Date:	
NCR:	Yes / No				WORK ORDER NON-O	CON	IFORI	MANCE / UPD	DATE	QA Closed:	Date:	,
		<u></u>			DISPOSITION				AGAINST DE			
Work Orde	er:					,		F		· •		. —
Part f	No				Rework Scrap Use-as-is		1	Skid-tube Machining noforming	Crosstube Small Fab Finishing	-1	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR I	No				Work Order Update]		Large Fab	Composite]	Supplier	
Root				Descri	ption of work order update	l li	nitial	Acti	ion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chi	ief Eng	Descri	iption	Date	Verification	QC Inspector
Doc/Data												,
Equip/Tooling												
Operator												
Material										,		
Setup												
Other												
Process												
Supplier												
Training												·
Unapproved						<u> </u>					<u> </u>	
						AUL	T CATE	GORY				
Landi	ng Gear			·	General				_	7		7
	Bendin	g		<u> </u>	Bend	\vdash	Grain		<u> </u>	Ovalized		Pressure/Forced
	Centre	Not Conce	ntric to	O/S	BOM/Route	\vdash	Hardwa		ļ	Over/Under	⊢	Temperature/Cure
	Cracks				Broken/Damaged	\vdash		ion Incomplete		Part Incorre	<u> </u>	Weld
	Crushed	d/Crimped			Burrs	-		ions Incomplete/U	Jnclear	Part Lost/M	· <u> </u>	Wrong Stock Pulled
	Cuffs				Contamination		Mainte	enance	<u></u>	Part Moved		
1	Heat Tr	eat			Countersink		Mislabe	eled		Positioned \	Wrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Cut Too Short

Drill Holes

Drawing

Finish Folio Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

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April-16-13 12:37:03 PM

Work Order ID: 99941

99941

Parent Item:

646,4001

646 4001

Parent Item Name: AS350 Cable Cutter

Start Date: 4/16/13 Start Otv: 1.00

Required Date: 4/30/13

**

Required Oty: 1.00

646.3710

646.3210

646.3713

646.3110

Manufactured

Manufactured

Manufactured

Manufactured

6.0000 Each

Location ST139A 125083 Loc Oty

Each

Each

Each

Loc Code

22,0000

Location ST425

97175

93208

Loc Qty 22 22 Loc Code

No

Location ST538 93488 Loc Qty 5 Loc Code

5.0000

7.0000

Location ST139A

Loc Qty

Loc Code

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Shop Packet Print

Page 4

MCD.	Voc	1	No
NCR:	Yes	/	No

DQA: Date:

NCR: Y	es / No				WORK ORDER NON-	CONFOR	MANCE / UP	PDATE	QA Closed:	Date	2:
Work Orde	r:				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part N					Rework Scrap]	Skid-tube Machining	Crosstube Small Fab	4	Water Jet d. Eng. Coor.	Engineering Quality
NCR N	0.				Use-as-is Work Order Update	Ther	moforming Large Fab	Finishing Composite	Rec/Sto	e/Packaging Supplier	Other
Root Cause	Date	Step	Qty		ption of work order update or Non-conformance	Initial Chief Eng	1	ction cription	Sign & Date	Verification	QC Inspector
Doc/Data Equip/Tooling											
Operator Material				•			<u>.</u>				
Setup Other											
Process Supplier											
Training Unapproved						AULT CAT	FGORY				
Landin	ig Gear		•		General	AULI CAI	LGONT				
	Bending Centre No	ot Conce	ntric to	o/ş	Bend BOM/Route	Grain Hardw	are		Ovalized Over/Under		Pressure/Forced Temperature/Cure
	Cracks Crushed/	Crimped.			Broken/Damaged Burrs	—	tion Incomplete ctions Incomplete,	/Unclear	Part Incorre Part Lost/M	<u> </u>	Weld Wrong Stock Pulled
	Cuffs Heat Trea	at			Contamination Countersink	Maint Mislat	tenance peled		Part Moved Positioned \	Vrong	
-	Inspectio Ripples in	n Strip in	Tube		Cut Too Short Drill Holes	Misrea	ad		Power Loss/	'Surge	Other
}	Torque W	/aves in E		n	Drawing	Out of	Calibration				
	Turning S Wave/Tw			-	Finish Folio	-	Sequence le Dimensions				

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Work Order ID: 99941 *99941* Parent Item: 646.4001 *646 4001* Parent Item Name: AS350 Cable Cutter **Start Date:** 4/16/13 Required Date: 4/30/13 Start Qty: 1.00 MS24694-S51 Purchased No 108.0000 Each ** Location Loc Qty Loc Code ST303 108 116805 123741 107... AN3-13A Purchased No Each 95.0000

Purchased

No

AN3-4A

Locatio	<u>n</u>	Loc Qty	Loc Code
ST351		45	
	104746	15	·
	120910	30	
ST512		50	
	123759	50	
		Each	453.0000

	, **PY ,	
Location	Loc Oty	Loc Code
ST350	318	
120308	80	
122814	38	
124858	200	
ST512	135	
120770	134	
123900	1	

**

120910



Required Qty: 1.00

		DQA:	Date:	•	
NCR: Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE		-		+
		OA Clasad:	Data		

									QA Closed.	Date.	
Work Orde	er:			-	DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
					Rework		Skid-tube	Crosstube		Water Jet	Engineering
Part N	lo.				Scrap		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is	Therr	noforming	Finishing	Rec/Stor	e/Packaging	Other
NCR N	lo.			,	Work Order Update		Large Fab	Composite		Supplier	
Root				Descri	ption of work order update	Initial	Ac	tion	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data					•						
Equip/Tooling	_										
Operator											
Material											
Setup	_				•						
Other			ļ			ļ					
Process											
Supplier					•						
Training							ļ				
Unapproved		<u> </u>	<u>L</u>	l		L			<u> </u>		
						AULT CATE	GORY				
Landii	ng Gear			,	General			Γ	1] ₅ / ₅
.·	Bending				Bend	Grain		<u> </u>	Ovalized		Pressure/Forced
	—	lot Conce	ntric to	O/S	BOM/Route	Hardwa		<u> </u>	Over/Under		Temperature/Cure
	Cracks			_	Broken/Damaged	—	ion Incomplete	,, <u> </u>	Part Incorred		Weld
		/Crimped	-	<u> </u>	Burrs		tions Incomplete/	'Unclear	Part Lost/Mi	issing	Wrong Stock Pulled
	Cuffs		-	Contamination	\vdash	enance	_	Part Moved	11		
	Heat Tre			-	Countersink	Mislab		<u> </u>	Positioned V		Other
		on Strip in	fube	-	Cut Too Short	Misrea	α	L.	Power Loss/	ourge	Other
			Drill Holes	Offset	Calibuaki				· · · · · · · ·		
				n	Drawing		Calibration				
Turning Sequence Wave/Twist in Tube				-	Finish	_	Sequence				
	IWave/Tr	wist in Tul	oe -	1	l Folio	i iOutsid	e Dimensions				

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Work Order ID: 99941

646.4001

99941

Parent Item Name: AS350 Cable Cutter

646 4001

Location

123785

123425

ST329

Start Date: 4/16/13

Required Date: 4/30/13

Start Qty: 1.00

Required Qty: 1.00

CR3213-5-3

MS20470AD5-5.5

Parent Item:

Purchased

Purchased

No-

Each 300.0000

**

Loc Code

300 Each 741.0000

646.3711

Manufactured No

Location ST336

Loc Qty 741 741

Loc Qty

300

Each

Loc Code

2.0000

Manufactured

Location ST139B

125083

125083

Loc Oty 2

Each

Loc Code

2.0000

646.3712

Location ST139B

Loc Oty 2 2

Loc Code

			DQA:	Date:	•	
ICR:	Yes /	No	WORK ORDER NON-CONFORMANCE / UPDATE			•

											QA Closed:	Date	
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part f	No.					Rework Scrap Use-as-is	7	Machining Small Fa		Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR I	۷o.				·	Work Order Update		Large Fab Composit				Supplier	
Root					Descri	ription of work order update		Initial Action		ction	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Chief	f Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data													·
Equip/Tooling								:				-	
Operator													
Material													
Setup													
Other												1	
Process				<u>.</u>									
Supplier													· ·
Training													
Unapproved				<u> </u>			<u> </u>					<u></u>	
						F	AULT (CATE	GORY				
Landi	ng (Gear				General					7	_	¬
		Bending				Bend	\vdash	rain			Ovalized		Pressure/Forced
		Centre No	t Concer	ntric to	o/s	BOM/Route	⊢	ardwa			Over/Under	⊢	Temperature/Cure
		Cracks				Broken/Damaged	-		on Incomplete		Part Incorre	<u> </u>	Weld
`\		Crushed/0	Crimped.			Burrs			ions Incomplete,	/Unclear	Part Lost/M	- <u>-</u>	Wrong Stock Pulled
		Cuffs				Contamination	₩		nance		Part Moved		•
		Heat Trea	t			Countersink	Шм	Iislabe	led		Positioned \	· .	
		Inspection	n Strip in	Tube		Cut Too Short		lisreac	t		Power Loss/	'Surge L	Other
Ripples in Bend Drill Holes				\vdash	ffset			·					
Torque Waves in Extrusion Drawing					Drawing	_		Calibration					
Turning Sequence Finish				-	\vdash		equence				 		
		Wave/Tw	ist in Tub	e		Folio	0	utside	Dimensions				

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Work Order ID: 99941

99941

Parent Item:

646.4001

646 4001

Parent Item Name: AS350 Cable Cutter **Start Date: 4/16/13** Required Date: 4/30/13 Start Qty: 1.00 Required Qty: 1.00 646.3811 Manufactured Each 29.0000 Location Loc Qty Loc Code ST139A 29 125083 9 93224 20 AN3-6A Purchased No Each 438.0000 ** Location Loc Qty Loc Code ST350 300 124296 300 ST351 61 117441 34 121166 13 122993 10 123831 ST512 77 122814 77 MS24694-S55 Purchased No Each 92.0000 ** Screw Location Loc Oty Loc Code ST303 92

92

124296

				DQA:
NCR:	Yes /	No	WORK ORDER NON-CONFORMANCE / UPDATE	

WCR.	C3 / NO									QA Closed:	Date:	
Work Orde	r:	·	. <u>.</u>		DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
					Rework			Skid-tube	Crosstube		Water Jet	Engineering
Part N	0				Scrap							Quality
					Use-as-is	4		noforming	Finishing	Rec/Stoi	re/Packaging	Other
NCR No Work Order Update						┙┃		Large Fab	Composite]	Supplier	. []
Root				Descr	iption of work order update	1	nitial	Ad	ction	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data							:					
quip/Tooling						1						
Operator												
Material												
Setup	`*.										·	,
Other						ŀ						
Process	_		-									
Supplier	_											•
Training	_				,							
Unapproved		<u> </u>				_ <u> </u>	T CATE	CORV		<u> </u>	<u> </u>	
		· · · · · · · · · · · · · · · · · · ·			General	FAUL	ICATE	GORT				
Landin	g Gear Bending				Bend		Grain		[Ovalized	· È	Pressure/Forced
}	Centre No	ot Conco	atric to (-/s	BOM/Route	\vdash	Hardwa	ure.		Over/Under	tolerance	Temperature/Cure
ļ	Cracks	or conce	itile to	": -	Broken/Damaged		ł	ion Incomplete		Part Incorre		Weld
F	Crushed/	Crimned		-	Burrs		1	ions Incomplete,	/Unclear	Part Lost/M	<u> </u>	Wrong Stock Pulled
ŀ	Cuffs	сттрей.			Contamination		Mainte		-	Part Moved		
-	Heat Trea	et '		-	Countersink		Mislabe			Positioned \	Vrong	
-	Inspectio		Tube		Cut Too Short	-	Misread			Power Loss/	· ·	Other
-	Ripples in				Drill Holes	H	Offset		L	-i	_	<u> </u>
	Torque W		xtrusio	, F	Drawing		ł	Calibration				
Turning Sequence Finish					Out of Sequence							
ľ	Wave/Tw				Folio		Outside	Dimensions				

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Work Order ID: 99941

646.4001

99941

Parent Item Name: AS350 Cable Cutter

Parent Item:

646 4001

646.3610

646.3714

MS20470AD5-6

646.3812

Manufactured

Start Qty: 1.00

18.0000

Loc Code

Each

**

**

Start Date: 4/16/13

Required Date: 4/30/13

Required Qty: 1.00

Manufactured No Location Loc Oty 125083 125083 ST139A 11 93434 11

Each 2.0000

Purchased No ST139A

Location

2 93175 2 Each

1,756.000

Loc Code

99597

Manufactured No

Location Loc Qty Loc Code ST336 1756 105433. 866 124089 890 Each

Loc Oty

9.0000

Gusset Bracket

Location ST139B

93185

Loc Oty

Loc Code

Shop Packet Print

												DQA:	Da	ate:	•
NCR:	Yes	/ No				WORK ORDER NON-O	100	NFORM	ANCE / UP	DATE					•
							QA Closed: Date:							114 · · · · · · · · · · · · · · · · · ·	
Manda Ond					·	DISPOSITION				AGAINST DE	ΕP	ARTMENT	PROCESS		
Work Ord	er.					Rework	7 I		Skid-tube	Crosstube	7	Water Jet			Engineering
Part I	Nο					Scrap	⊢⊣ I			Small Fab	1	Proc	d. Eng. Coor	\vdash	Quality
, , ,					Use-as-is	1		noforming	Finishing	1		e/Packaging	\vdash	Other	
NCR I	Vo.					Work Order Update	1		Large Fab	Composite]		Supplie	r	
	•										_				
Root			·			ption of work order update	1	Initial	Act		Į	Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descr	iption	4	Date	Verification	on _	QC Inspector
Doc/Data															
Equip/Tooling															
Operator												•			
Material															
Setup			ļ								ł				
Other															
Process	_											:			
Supplier	_			<u> </u>											
Training											1				
Unapproved			<u> </u>	<u> </u>			1	T CATE	CORV	** * ***					
				·		General	AUL	. I CATE	GURT						
Landi	ng (Bending			_	Bend		Grain		<u></u>	j	Ovalized			Pressure/Forced
	┝	Centre No	nt Conce	ntric to		BOM/Route		Hardwa	re	-	-	Over/Under	tolerance		Temperature/Cure
	\vdash	Cracks	or concei	itile to	°′3 -	Broken/Damaged	\vdash	-	on Incomplete	-		Part Incorred			Weld
			Burrs		4	ions Incomplete/l	Jnclear -	\dashv	Part Lost/Mi			Wrong Stock Pulled			
	_	Cuffs	cimpeu.		.	Contamination	\vdash	Mainte	•		⊣	Part Moved		Щ.	,
,	\vdash	Heat Trea	at		-	Countersink	-	Mislabe		<u> </u>		Positioned V	Vrong		
	\vdash	Inspectio		Tube		Cut Too Short		Misread			_	Power Loss/	_	Г	Other
	•	Inspectio	n Strip in	Tube	ļ	Cut 100 Short		Jiviisiead	ı	<u>L</u>		rower coss/	Juige	<u> </u>	Totalei

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence
Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

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Work Order ID: 99941

646.4001

99941 *646 4001*

Location

125083

ST139d

Parent Item:

AN3-3A

646.3813

MS20470AD5-7

MS21047-3

Parent Item Name: AS350 Cable Cutter

Start Date: 4/16/13

Required Date: 4/30/13

Start Qty: 1.00

Required Qty: 1.00

Purchased

No

Each 268.0000

Loc Code

Manufactured

Location Loc Qty ST350 268 123831 7 124221 200 124552 61

Each 5.0000

Purchased

Purchased

No

No

Loc Qty 5 5

Each

Each

2,194.000

Loc Code

**

**

Location Loc Oty Loc Code Mezz 1384 - 2655 799 3011 585 ST336 810 123425 810

445.0000

NUT PLATE

4325

Location Loc Oty ST316 445 123268 75 123301 50 123522 320

Loc Code

123502

NICD.	Voc	1	Ma
NCR:	Yes	/	No

DQA: _____ Date: ____

NCR: Y	es / No				WORK ORDER NON-O	CONFOR	RMANCE / UI	PDATE	QA Closed:	Date	:
Work Orde	r·			-	DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part N					Rework Scrap		Skid-tube Machining	Crosstube Small Fab	Water Jet Prod. Eng. Coor.		Engineering Quality
NCR N	0				Use-as-is Work Order Update	The	rmoforming Large Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other
Root				Descri	ption of work order update	Initial	A	action	Sign &	****	
Cause	Date	Step	Qty		or Non-conformance	Chief En	g Des	scription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling											
Operator											
Material [
Setup						•					
Other						ļ					
Process											
Supplier											
Training									1		
Unapproved										<u> </u>	
					F	AULT CAT	EGORY				
Landin	g Gear				General				_		<u>_</u>
-	Bending			Γ	Bend	Grain	1		Ovalized		Pressure/Forced
	Centre No	ot Conce	ntric to (o/s	BOM/Route	Hardy	vare		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	Inspe	ction Incomplete		Part Incorre	ct [Weld
	Crushed/	Crimped.			Burrs	Instru	ctions Incomplete	e/Unclear	Part Lost/M	issing	Wrong Stock Pulled
Ī	Cuffs	•			Contamination	Mair	tenance		Part Moved		**
	Heat Trea	at			Countersink	Misla	beled		Positioned \	V rong	,
├ ─ -					Cut Too Short	Misre	ad		Power Loss,	/Surge	Other
F	Ripples in				Drill Holes	Offse	t				
	Torque W		xtrusion	,	Drawing	Out	f Calibration				
ŀ	Turning S				Finish	Out of Sequence					
†	Wave/Tw	-		—	Folio	 	Outside Dimensions				

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Work Order ID: 99941

Parent Item:

CCR264SS3-02

646.4001

Parent Item Name: AS350 Cable Cutter

99941 *646 4001*

Start Date: 4/16/13

Start Qty: 1.00

Required Date: 4/30/13

Required Qty: 1.00

Purchased

No

Each 740.0000

Loc Code

AN3-5A

Purchased No **Location** Loc Oty ST327 740 106578 100 123785 240 124231 200 124259 200 Each

1,103.000

**

Manufactured No

Location Loc Qty Loc Code FP001 86 122800 86 GA 120 117423 120 ST350 22 120187 22 ST512 875 122416 75 124561 800 Each 12.0000

**

Location Loc Oty Loc Code ST139B 12 93338 12

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Strut Doubler

NCR: Yes / No	WORK ORDER NON-CO	NFORMANCE / UP		0.1.61
	DISPOSITION		**************************************	QA Closed: PARTMENT/PR
Work Order:	Rework	Skid-tube	Crosstube	,
Part No.	Scrap Use-as-is	Machining Thermoforming	Small Fab Finishing	Prod. E Rec/Store/F

Work Order:					DISPOSITION			AGAINST DE	EPARTMENT/PROCESS			
Work Orde	·				Rework	7	Skid-tube	Crosstube	1	Water Jet	Engineering	
Part N	n				Scrap	1	Machining	Small Fab	Pro	d. Eng. Coor.	Quality	
rareit	·				Use-as-is	l l The	rmoforming	Finishing	-1	re/Packaging	Other	
NCR N	0.				Work Order Update		Large Fab	Composite	<u> </u>	Supplier		
Root				i .	ption of work order update	Initial	1	ction	Sign &			
Cause	Date	Step	Qty	(or Non-conformance	Chief Er	g Des	cription	Date	Verification	QC Inspector	
Doc/Data												
Equip/Tooling												
Operator							1		j		·	
Material) .										
Setup				,								
Other						ļ						
Process		j	·		•							
Supplier		1	}						,	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Training												
Unapproved		<u> </u>				<u> </u>				l. <u></u>		
					F.	AULT CA	rEGORY					
Landin	g Gear				General				-	_	_	
Ĺ	Bending				Bend	Grain	ı		Ovalized	<u> </u>	Pressure/Forced	
	Centre No	ot Concer	ntric to	o/s	BOM/Route	Hard	ware		Over/Under	r tolerance	Temperature/Cure	
	Cracks				Broken/Damaged	Inspe	ction Incomplete		Part Incorre	ct	Weld	
	Crushed/	Crimped.			Burrs	Instru	ictions Incomplete	/Unclear	Part Lost/M	lissing	Wrong Stock Pulled	
	Cuffs			e	Contamination	Mair	tenance		Part Moved			
	Heat Trea	at			Countersink	Misla	beled		Positioned \	Wrong		
	Inspectio	n Strip in	Tube		Cut Too Short	Misre	ead	L	Power Loss,	/Surge	Other	
	Ripples ir	n Bend			Drill Holes	Offse	t					
	Torque W	Vaves in E	xtrusio	n	Drawing	Out	f Calibration					
Turning Sequence		Finish	Out	Out of Sequence								
	Wave/Twist in Tube		Folio	Outsi	Outside Dimensions							

DQA:

Date:

Date:

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Work Order ID: 99941

99941

Parent Item:

MS27039-1-12

646.3716

MS20426AD5-7

MS24694-S54

646.4001

646 4001

Parent Item Name: AS350 Cable Cutter

Start Date: 4/16/13

Required Date: 4/30/13

Start Qty: 1.00

Required Qty: 1.00

Manufactured

Purchased

Location Mezz

100993

Loc Qty 169 169

Loc Qty

Loc Oty

Each

Each 4.0000

**

Purchased

No

Location 125083 125083

Each

813.0000

Loc Code

Loc Code

169.0000

Loc Code

Purchased No Location ST334

124859

813 101340

813 Each 76.0000

Screw

Location ST303 123900 Loc Qty 76 1 75 Loc Code

										DQA:	Date:	
NCR: Y	'es	/ No				WORK ORDER NON-C	CONFOR	MANCE / UI		QA Closed:	Date:	,
Work Orde	ır.					DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	•
Part N	lo					Rework Scrap Use-as-is Work Order Update	4 I	Skid-tube Machining moforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update	Initial	A	ction	Sign &		
Cause	1	Date	Step	Qty		or Non-conformance	Chief Eng	Des	cription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator					· ·			-				
Material												
Setup	_				ļ.							
Other											·	
Process									•			
Supplier											:	
Training												
Unapproved]					

FAULT CATEGORY General **Landing Gear** Grain Pressure/Forced Ovalized Bend Bending Temperature/Cure BOM/Route Over/Under tolerance Centre Not Concentric to O/S Hardware Weld Inspection Incomplete Part Incorrect Broken/Damaged Cracks Wrong Stock Pulled Instructions Incomplete/Unclear Part Lost/Missing Crushed/Crimped. Burrs Part Moved Contamination Maintenance Cuffs Positioned Wrong Heat Treat Countersink Mislabeled Other Power Loss/Surge Cut Too Short Inspection Strip in Tube Misread Drill Holes Ripples in Bend Offset Out of Calibration Torque Waves in Extrusion Drawing Finish Out of Sequence Turning Sequence Wave/Twist in Tube Folio Outside Dimensions

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Work Order ID: 99941

Parent Item:

MS27039-1-20

646:3717

Doubler

646.4001

Parent Item Name: AS350 Cable Cutter

99941

646 4001

Start Date: 4/16/13

Start Qty: 1.00

Required Date: 4/30/13

Required Qty: 1.00

MS27039-1-21

Purchased

No

Each

343.0000

Loc Code

**

**

**

Purchased

No

Location Loc Oty ST306 43 115935 43 ST506 300 124326 300

Each 478.0000

MS27039-1-19

Purchased

No

Location Loc Qty Loc Code st510 478 124326 478 Each

848.0000

Screw

Manufactured

Location Loc Oty Loc Code ST306 102 122814 2 123522 100 ST506 746 124326 746 Each 2.0000

**

Location Loc Qty Loc Code ST139B 2 2

125083

NCR: Y	es /	No					WORK ORDER NON-C	ON	IFORN	MANCE / UP	DATE	OA Classed	Data	
						_			-			QA Closed:	Date:	
Work Orde	r·						DISPOSITION	İ			AGAINST DI	PARTMENT	PROCESS	
voik orac							Rework			Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	ο.						Scrap		r	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
							Use-as-is			noforming	Finishing	Rec/Stor	e/Packaging	Other
NCR N	o			 -		١	Work Order Update			Large Fab	Composite]	Supplier	
Root	<u> </u>				Desc	crip	otion of work order update		nitial	Ac	ction	Sign &		
Cause	1	Date	Step	Qty		0	r Non-conformance	Ch	ief Eng	Desc	cription	Date	Verification	QC Inspector
oc/Data				_									i	
quip/Tooling		l												
perator	_										,			
1aterial												1		
etup		İ												
ther								ŀ						
rocess	_]													
upplier												!		
raining														·
napproved								<u> </u>				<u> </u>		· · · <u></u>
							F	AUL	T CATE	GORY				
Landin	g Gea	r			-		General		ı		<u></u> -	 1		
	Be	nding			ļ		Bend		Grain		-	Ovalized	,	Pressure/Forced
_	Ce	ntre No	t Concer	tric to	o/s		BOM/Route	L_	Hardwa	re		Over/Under	<u> </u>	Temperature/Cure
	Cra	acks			Ĺ		Broken/Damaged		Inspecti	on Incomplete		Part Incorre		Weld
	Cri	ushed/C	rimped.		Į		Burrs		Instruct	ions Incomplete/	/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulied
	Cu	ffs					Contamination		Mainte	enance		Part Moved		
Γ	He	at Treat	į		Ī		Countersink		Mislabe	eled		Positioned V	Vrong	,
Ī	Ins	pection	Strip in	Tube	Ī		Cut Too Short		Misread	t		Power Loss/	Surge	Other
Ī	Rip	ples in	Bend				Drill Holes		Offset		-			
	То	rque Wa	aves in E	xtrusio	n		Drawing		Out of 0	Calibration				
ļ	_	•	quence				Finish		Out of S	Sequence				
<u> </u>	— 1	_	· st in Tub	e	Ì		Folio		Outside	Dimensions				

DQA: _____ Date: _

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Work Order ID: 99941

646.4001

99941

Parent Item Name: AS350 Cable Cutter

Parent Item:

646 4001

Location

ST139B

646.3718

646.3719

Screw

<u>*646-3719*</u>

Manufactured

Each 45.0000

**

Start Date: 4/16/13

Start Qty: 1.00

Required Otx: 1.00

Required Date: 4/30/13

Manufactured No

ST139A 125083 ST522 38 93365 38 Each 24.0000

Loc Qty

**

100/29

MS27039-1-10

Purchased No Location Loc Oty Loc Code 24 125083 24 Each

321.0000

Loc Code

<u>Locatio</u>	<u>n</u>	Loc Oty	Loc Code
GA		100	
	120449	100	;
ST305		101	
	122815	1	
	124859	100	
ST308		18	
	123522	18	
ST506		102	

102

124326

NCR:	Yes	/ No	,			WORK ORDER NON-	COI	NFORM	MANCE / UPDA		QA Closed:	Date:	
Work Orde	er: _					DISPOSITION	7			AGAINST DEI	PARTMENT	/PROCESS Water Jet	Engineering
Part No. NCR No.						Rework Scrap Use-as-is Work Order Update	Scrap Machining Small Fab Use-as-is Thermoforming Finishing R					d. Eng. Coor. re/Packaging Supplier	Quality Other
Root Cause		Date	Step	Qty		ption of work order update or Non-conformance	1	Initial nief Eng	Action Descripti		Sign & Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved		. `				·			·				
							FAUI	LT CATE	GORY				
Landi		Bending Centre No Cracks Crushed/ Cuffs Heat Trea nspection	n Strip in Bend	Tube		General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misread Offset	ion Incomplete tions Incomplete/Uncl enance eled d		Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	1	Torque W	aves in E	xtrusio	n	Drawing		Out of (Calibration				

Out of Sequence

Outside Dimensions

Date:

DQA:

Turning Sequence

Wave/Twist in Tube

Finish Folio

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April-16-13 12:37:03 PM

Work Order ID: 99941

646.4001

Parent Item Name: AS350 Cable Cutter

Parent Item:

AN3-HA

99941

646 4001

Start Date: 4/16/13

Required Date: 4/30/13

Start Qty: 1.00

Required Qty: 1.00

Purchased

Purchased

No

Each 672.0000

No

No

Location Loc Qty Loc Code ST351 72 123525 72 ST512 600 115457 100 123352 200 123759 300

Each 9.0000

Magnabond 6398 Part A (One 4 oz can)

600.0991

600.0990

Purchased No ST 125051

9.0000

Loc Code

Magnabond 6398 Part B (One 4 oz can)

600.1012

Purchased

Location ST

Location

125051

125051

Loc Qty Loc Code 9 Each 9.0000

**

**

Sealant (One 6 oz Semkit)

Location ST

Loc Oty

Loc Qty

9

Each

Loc Code

NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE															
											QA Clo	osed:	Date	3:	
Work Orde	er:		, ,			DISPOSITION				AGAINST D	PARTN	/ENT	/PROCESS		
Part No. NCR No.						Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier				Engineering Quality Other
Root					Descri	ption of work order update		nitial	Ad	ction	Sign	ո &			
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	cription	Da	te	Verification		QC Inspector
Doc/Data		- "										i			
Equip/Tooling					İ						ļ				
Operator														-	
Material				٠ ,											
Setup					1						ļ			İ	
Other		·									1			- 1	
Process					,										
Supplier														ļ	
Training														.	
Unapproved			1		1										
			<u> </u>			F	AUI	T CATE	GORY						
Landii	ng (Gear			· · · · · · · · · · · · · · · · · · ·	General						-			
		Bending				Bend		Grain			Ovaliz	ed	Γ		Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	re		Over/	Under	tolerance	7	Temperature/Cure
		Cracks				Broken/Damaged	\vdash	Inspect	on Incomplete		Part Ir	ncorre	ct [٦.	Weld

Instructions Incomplete/Unclear

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread Offset DQA:

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Part Moved

Date:

Wrong Stock Pulled

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Cuffs

Heat Treat

Burrs

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Åpril-16-13 12:37:03 PM

Work Order ID: 99941

99941

Parent Item:

646.4001

646 4001

Parent Item Name: AS350 Cable Cutter

Start Date: 4/16/13

Required Date: 4/30/13

Start Qty: 1.00

Required Qty: 1.00

600.0129

600.1013

Purchased

No

125031

125154

125083

93238

Loc Qty Loc Code 128

> 128 Each

f

945.0000 **

128.0000

646.3910

646.3911

Shim

Purchased

Manufactured

Manufactured

No

No

Location ST

Location

ST139A

Location

ST139B

ST139d

Loc Code

Loc Oty 945 945

Each 72.0000

**

**

Loc Code

22 22

50 50 Each

Loc Qty

20.0000

125083

Location Loc Qty Loc Code ST139A

125083 ST139d

93362

19 19

Shop Packet Print

April-16-13 12:37:03 PM

Page 15

Material Setup													DQA:	Da Da	ate: _	•
DISPOSITION Rework Skid-tube Crosstube Skid-tube Small Fab Prod. Eng. Coor. Quality Quality Quality Prod. Eng. Coor. Quality Quali	NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UPE	DATE		•			•
Nork Order:												Q/	A Closed:	Da	ate:	
Root * Other Garding Corporation Control of Water Jet Engineering Action Sign & Verification Other Garding Composite Composi							DISPOSITION				AGAINST D	EPA	RTMENT/	PROCESS		
Part No.	Work Ora	er:		- 			Downer L	٦		Skid tubo	Crosstuba	٦		Mater let	, [Engineering
NCR No.	Dowt !	N.					<u> </u>		E .	├	<u> </u>	-	Proc		\vdash	
Root ' Cause Date Step Qty Description of work order update or Non-conformance Chief Eng Description Date Step Qty Or Non-conformance Chief Eng Description Date Verification QC Inspector Dac/Data Equip/Tooling Operator Onter Oth	Parti	VO.	•				` 	1		· · · · · ·	-	1		_	-	·
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Doc/Data Gequip/Tooling Goperator Go	Root	23				Descr	iption of work order update		Initial	Act	ion	1	Sign &			
Equip/Tooling Operator	Cause		Date	Step	Qty		or Non-conformance	Cr	nief Eng	Descr	iption		Date	Verification	on	QC Inspector
Operator Material Setup Other	Doc/Data															
Material Setup	Equip/Tooling]									Ì				
Setup Other Process Supplier Training Unapproved FAULT CATEGORY Landing Gear General Bending Bend Gentre Not Concentric to O/S BOM/Route Hardware Over/Under tolerance Temperature/Cure Cracks Broken/Damaged Instructions Incomplete Part Lost/Missing Wrong Stock Pulled	Operator															
Other Process Supplier Training Unapproved Landing Gear General Bending Bend Grain Ovalized Pressure/Forced Hardware Over/Under tolerance Temperature/Cure Cracks Broken/Damaged Instructions Incomplete Part Lost/Missing Wrong Stock Pulled Wrong Stock Pulled Part Lost/Missing Wrong Stock Pulled Wro	Material			İ												
Process Supplier Training Unapproved Landing Gear General	Setup															
Supplier Training Unapproved FAULT CATEGORY Landing Gear General Bending Centre Not Concentric to O/S Cracks Cracks Crushed/Crimped. Burrs FAULT CATEGORY FAULT CATEGORY Grain Hardware Hardware Hardware Inspection Incomplete Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled	Other	L_					•									
Training Unapproved	Process	_													-	
Landing Gear General	Supplier	L		į.												
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Bending Bend Grain Ovalized Pressure/Forced Centre Not Concentric to O/S BOM/Route Hardware Over/Under tolerance Temperature/Cure Cracks Broken/Damaged Inspection Incomplete Part Incorrect Weld Crushed/Crimped Burrs Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled								AUI	LT CATE	GORY						
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		-	4	Cuiman a d		- -	- '	\vdash	-i `		Inclear	-			\vdash	4
Contamination Maintenance Part Moved		├				\vdash					rt Moved	331118	L	1ong stock i diled		

Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset

Countersink

Cut Too Short

Drill Holes

Drawing

Finish Folio Positioned Wrong

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

April-16-13 12:37:03 PM

Work Order, ID: 99941

99941

Parent Item:

646.4001

646 4001

Location

ST139B

ST139d

125083

93160

Parent Item Name: AS350 Cable Cutter

Each

646.3912

646.3913

646.3913

Manufactured

Purchased

AN3-12A

Manufactured

No

Location Loc Qty ST139A 22 125083 22 ST139d

51 93423 51 Each

Loc Code

Loc Code

36.0000

Loc Qty

Each

59.0000

Location Loc Oty Loc Code GA 6 122407 6 ST351 114536 123352 ST512 48 123759

Start Date: 4/16/13

Start Qty: 1.00

73.0000

**

**

Required Date: 4/30/13 Required Qty: 1.00

175757

(13/6/0 W)

			DQA:
NCR:	Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE	
			QA Closed:

									QA Closed:	Date			
Work Order:					DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part No					Rework Scrap Use-as-is	4 .	Skid-tube Machining moforming	Crosstube Small Fab	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other		
NCR No)				Work Order Update]	Large Fab	Composite	1100,0101	Supplier			
Root				Descr	iption of work order update	Initial	Act	tion	Sign &				
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Descr	ription	Date	Verification	QC Inspector		
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier													
Training	1												
Unapproved	1	ł											
					F	AULT CATE	GORY						
Landing	Gear				General				=	_			
	Bending Centre No Cracks	ot Concer	ntric to	o/s	Bend BOM/Route Broken/Damaged	Grain Hardw Inspec	are ion Incomplete		Ovalized Over/Under Part Incorre	<u> </u>	Pressure/Forced Temperature/Cure Weld		
	Crushed/	Crimped.			Burrs	Instruc	tions Incomplete/l	Unclear	Part Lost/M	issing	Wrong Stock Pulled		
	Cuffs				Contamination	Maint	enance		Part Moved				
	Heat Trea	it			Countersink	Mislab	eled		Positioned \		_		
	Inspectio	n Strip in	Tube		Cut Too Short	Misrea	d		Power Loss/	'Surge	Other		
Ripples in Bend Drill Holes				Offset									
Torque Waves in Extrusion Drawing				Out of Calibration									
Turning Sequence Finish				Out of Sequence									
Wave/Twist in Tube Folio					Outsid	e Dimensions							

Date: ___

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

April-16-13 12:3":03 PM

Work Order ID: 99941

Parent Item:

646.4001

Parent Item Name: AS350 Cable Cutter

99941

646 4001

Start Date: 4/16/13

Start Qty: 1.00

Required Date: 4/30/13

Required Qty: 1.00

MS27039-1-16

Purchased

No

Each

70.0000

Location Loc Oty Loc Code

SALI

ST306

122993

70

70

												DQA:	Da	ite:	•
NCR:	Yes	/ No				WORK ORDER NON-	cor	VFORM	ANCE / UP	DATE					
												QA Closed:	Da	ite:	
Work Ord	or:					DISPOSITION				AGAINST I	DE	PARTMENT,	/PROCESS		
Work Ora	er.			·		Rework	7		Skid-tube	Crosstube			Water Jet		Engineering
Part	No.					Scrap	1		Machining	Small Fab		Pro	d. Eng. Coor.		Quality
			'			Use-as-is		Therm	noforming	Finishing		Rec/Sto	re/Packaging	-	Other
NCR	No.					Work Order Update	J		Large Fab	Composite			Supplier		
			T						Λ			Cian 0	,	—	
Root		Data	Chara	0		ption of work order update		Initial		tion ription		Sign & Date	Verificatio	\n	QC Inspector
Cause	T .	Date	Step	Qty		or Non-conformance	10	nief Eng	Desc	прион		Date	vermeatic		QC 1113pector
Doc/Data	\vdash														
Equip/Tooling	-														
Operator	\vdash													i	
Material	-														
Setup	-														
Other Process	-														
Supplier	\vdash	ĺ					1								
Training	\vdash														
Unapproved															
Onapproved	ــــــــــــــــــــــــــــــــــــــ	L	·	i			FAUL	T CATE	GORY			1	L		<u> </u>
Landi	ing (Gear				General									
	Ť	Bending				Bend		Grain		[Ovalized		Г	Pressure/Forced
		Centre N	ot Concei	ntric to C	o/s	BOM/Route		Hardwa	re			Over/Under	tolerance		Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete	[Part Incorre	ct		Weld
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/	Unclear		Part Lost/M	issing		Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance			Part Moved			
		Heat Trea	at			Countersink		Mislabe	led			Positioned \	Vrong		_
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	i	ĺ		Power Loss/	'Surge		Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Drill Holes

Drawing

Finish

Folio

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

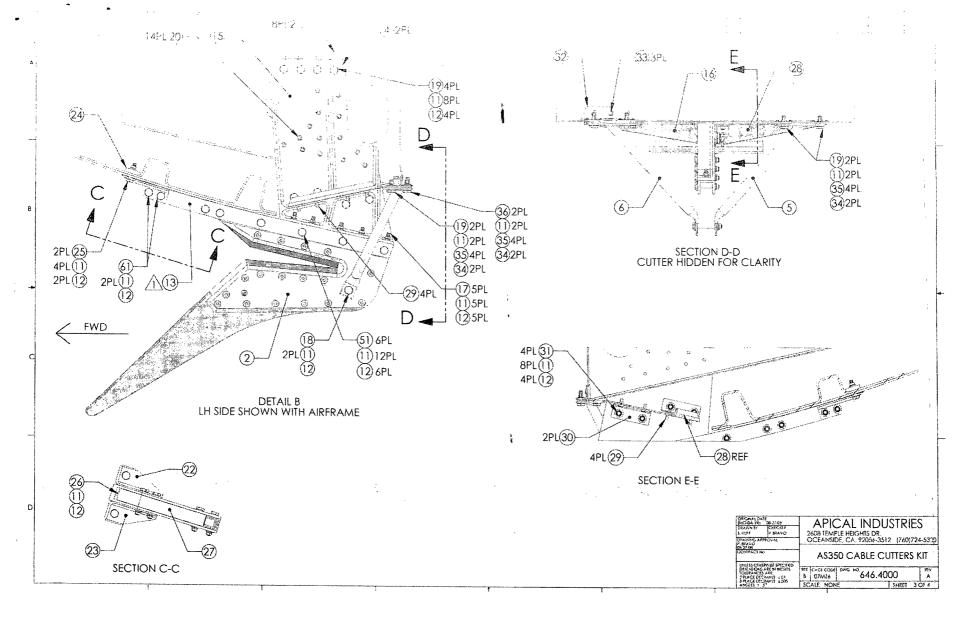
Torque Waves in Extrusion

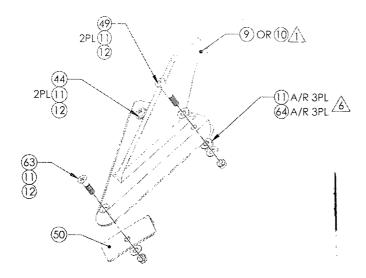
H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

	ENGINEERING CHANGE NOTICE NO 03079	SHEET 1 JF 1
APICAL	DWG NO. 646.4000 REV: A PREPARED N.CAP DA	ATE: 03/21/11 EFFECT ON DWG
INDUSTRIES, INC.	DWG TITLE: AS350 CABLE CUTTERS KIT	
	APPROVED BY ENGR BAND MFG Davit Back OC MIGHIE	uff NEXT ORDER
TRANSACTION CODES (TC) A-ADD C-CREATE R-REVISE D-DELETE	REASON: CREATED FIXED AND CCK WITHOUT FIXED PROV	
SHEET 1,	BDM, IS: B	SUZ-555 RIVE RESETABLE-7
DOCUMENTS EFFECTED:	CHANGE CATEGE	
DECORETE ELLEVIED	⊠ MDL ⊠ INSTALL INSTRUC ⊠ ICA ⊠ BOM □ MAJOR ⊠ MI	NOR O YES & NO

•	ENGINEERING CHANGE NOTICL NO. 03046	SHEET 1 NF 1
APICAL	DWG NO. 646.4000 REV: A PREPARED J. JACKSO	DATE: 01/24/11 EFFECT ON DWG
INDUSTRIES, INC.	DWG TITLE: AS350 CABLE CUTTERS KIT	A .
	APPROVED BY: ENGR Brance MFG David Paulan QC	NOUNCE SEEFE NEXT ORDER
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE	REASON: ADDED GPS MOUNT KIT, F/N 65. REVISED DRAW ADDED NOTE 7.	ING VIEWS
SHEET 1, ZONE B1	IS:	
AT CUSTO	MERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ONTO 1	F / N 1
773 777 003711		
SHEET 2 70NE AA	SHEET 2, ZI	DNE B2 IS:
SHEET 2, ZONE A4	13:	V 255
		REF (65) (A)
	(55)	
DETAIL D	8 OPPOSITE	
	REF ()	
1		
2131	5) DET	AIL D IT KIT INSTALLATION
	2PL (11)	IT KIT INSTALLATION
65 A 647.5701	REF GPS MOUNT KIT	A
F/N TC PART NUMBER	QTY DESCRIPTION OF A CONTROL OF	MATERIAL SPECIFICATION
DOCUMENTS EFFECTED:	□ MDL □ INSTALL INSTRUC □ ICA 図 B□M □ MAJ□R	CATEGORY DER REVIEW REQUIRED MINOR OYES MINO

NOTES. 4. AFTER INSTALLATION APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES <u> 45</u> 45 605.017.7 55 72 INSTALL F/N 14 WITH F/N 52 8 53 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE VENDOR: MCMASTER-CARR P/N 75935A651 MARKER BOWLERS 601,2826 NACING DICEDANA BOLL 50 646.3814 49 601.2910 WIFER BRACEE! SCREW 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE VENDOR: R.S. HUGHES P/N 021200-24216 2 48 601.1365 2 47 646.3719 SCREW DOUBLER CUSICM WASHER M502004 1-16 REUSE FASTENERS FROM F/N 1 2 46 645.3718 1 45 646.3717 22 44 601.1948 2 43 601.1952 USE WASHERS AS REQUIRED AS SHIMS TO OBTAIN BEST FITMENT MS27039-1-10 2 43 601.1952 4 42 601.1956 SCREW NEE2039 : 22 SCREW MS22032-1-01 2 41 691.2829 2 40 601.2831 1 39 646.3716 SCREW MS2469-155-1 RIVET M\$20428ADS 38 601,1953 37 646,3715 SCREW STRUT DOUBLER BOL! RIVET 37 696.07:5 36 601.2824 35 601.2277 34 600.0795 33 601.2565 41/3-54 CCP25455-940 MS21047-3 3 33 601.2565 1 32 646.3613 4 31 601.2822 2 30 646.3812 6 29 601.2564 RIVET M\$20470AD5-7 -DETAIL A AN3-3A GUSSET BRACKET RIVET M520470AFX5-6 28 646.3714 27 646.3610 GUSSET DETAIL C 26 601,2830 25 601,2825 SCREW BOLT M574694\$55 AN3-6A 24 | 646.3811 RADIUS BLOCK 23 646.37 | 2 22 646.37 | 1 21 601.2832 CLIP RIVE 149-294204-5-5 20 601.2832 20 601.2020 19 601.2823 18 601.2827 17 601.2912 16 646.3713 15 646.3210 RIVET CR3213-5-3 BOLT 6×3.46 646.4002 BOLT SCREW AN3-13A M534694551 SUPPOR 14 646.3710 13 646.3110 646.4001 DOUBLER 12 601,1624 LOCKNUT M\$21042L3 134 11 601,1607 10 646.3411 9 646.3410 DETAIL B RH WIPER DEFLECTOR LH WIPER DEFLECTOR 546.3513 STRUT 7 646.3512 64 601,3151 WASHER 646.351 STRUT MAS 149103636 63 601.291 SCREW 646,3510 MS24694552 646.3810 62 601.2637 BRACKE SCREW MS27039-1-16 3 646.2910 61 601.2763 DEFLECTOR BOLT AN3 12A 2 546,300 LOWER CUTTER ASSY 1 60 646.3913 4 59 646.3912 646.330 UPPER CUTTER ASSY MIHZ 1 58 646,3911 40: FIND# PARI# 646.4002 ASSESS WIPER DEFLECTOR IO 646,4001 ASSECT CHEERS BY MALL SPEC DESCRIPTION QTY PARTS UST NEXT ASSY (S) APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300 HLTF COMMACTIO AS350 CABLE CUTTERS KIT 646.4000 5 07MZ6 SCALE NONE SHPET 1 OF 4





DETAIL C LH SHOWN EXPLODED RH OPPOSITE

ORYDONAL DATE IMCASIA-YES 09-07-08		APICAL INDUSTRIES		
GRAVYN BY S. Hilliy	E GSTANO	2608 TEMPLE HE	IGHIS DR.	
HAVPAC APPECIVA; I BRAVO B 27-08		OCEANSIDE, CA. 92056-3512 (760)724-5330		
COLEPACT No.		AS350 CABLE CUTTERS KIT		
UNCESS COMERVISE SPECIFED DISTRIBUTIONS ARE IN NICHES TO STANCES AND TO STANCES FOR SAME TO STANCES FOR SAME SAME SAME SAME SAME SAME SAME SAME		B 07MZ6	*°646.4000	RE.
		SCALE NONE	CUEET	4.06.4

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April-16-13 12:3":00 PAI

Page 1

1.2744

Inšp.

Stamp

Reject

Number

Item 1D: 646.4001 Accept *N900040100* Setup Start **Revision ID:** Item Name: AS350 Cable Cutter Start Date: 4/16/13 Start Qty: 1.00 Cust Item ID: Required Date: 4/30/13 Req'd Qty: 1.00 **Customer:** Reference: Run Start **Process Plan: Approvals:** MLJ Date: 13-04-16 Tooling: Date: Stop OC: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Reject Tool # Plan Accept Work Center ID Description Qty Qty **Run Hours** Code Draw Nbr **Revision Nbr** 646.4000 Α 100 0.00 DOCUMENT CONTROL *100* 0.00 Memo Document Control Photocopy bluefile & type labels per PPP 646.4001 110 Pick Kit 0.00 *110* Packaging 0.00 Memo Packaging 120 QC4- 100% Inspect kits for completeness 0.00 *120* 0.00 Memo Quality Control